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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/671,911	09/24/2003	Hee-Keun Park	03203-URS	8469
33804	7590	07/12/2004		
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			EXAMINER VERDIER, CHRISTOPHER M	
			ART UNIT 3745	PAPER NUMBER

DATE MAILED: 07/12/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/671,911

Applicant(s)

PARK, HEE-KEUN

Examiner

Christopher Verdier

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-3 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 September 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____ |

Drawings

The drawings are objected to because in figures 1-2, elements "A", "A1", A2", "B", and B1" do not correspond with elements "A", "A1", A2", "B", and B1" in paragraphs 3-4 of the specification.

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the electrical device for driving the fan body being arranged in the base (claim 1, line 5) must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any

required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

The disclosure is objected to because of the following informalities: Appropriate correction is required.

In paragraph 4, line 25, -- in -- should be inserted after "result".

In paragraph 7, line 15, "purpose" should be changed to -- purposes --.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-3 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In claim 1, line 3, "the primary portion" is indefinite, in that it is unclear what element in the claim the primary portion belongs to. In claim 1, last line, "without any clearance" is meaningless because it is incomplete in that the claim does not specify what the clearance is relative to.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claim 1, as far as it is definite, is rejected under 35 U.S.C. 102(e) as being anticipated by Horng 2002/0146318 (figure 1). Note the cooling fan comprising a fan body 94 mounted on a base 91 through an unnumbered shaft assembly, in the base, an unnumbered depression having an unnumbered upward opening and a sideward opening 98 being formed centrally in a primary portion of the base, and the fan body being extended from its circumferential surface (the inner annular surface of the unnumbered baseplate near 97) outwardly to form a plurality of fan leaves 97, an electrical device 93 (bobbin 93 is an electrical device because a motor bobbin is known in the art to be a part of an electric fan motor) for driving the fan body being arranged in the base, in which all the bottom edges of the fan leaves are fixedly jointed with a common baseplate near 97, which is also formed by extending the circumferential surface of the fan body, without any clearance formed between the baseplate and the leave bottom edges.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1 and 3, as far as they are definite, are rejected under 35 U.S.C. 103(a) as being unpatentable over Huang 6,540,476 in view of Horng 6,132,170. Huang 6,540,476 (figures 2, 3a, and 3e) discloses a cooling fan comprising a fan body 300 mounted on a base 100 through a shaft assembly 310, in the base, an unnumbered depression having an upward opening near 120 and an unnumbered sideward opening (the fan is centrifugal so the opening is a side opening) being formed centrally in a primary portion of the base, and the fan body being extended from its circumferential surface (the inner annular surface of the baseplate 120) outwardly to form a plurality of fan leaves 330, a device 200 for driving the fan body being arranged in the base, in which all the bottom edges of the fan leaves are fixedly jointed with a common baseplate 320, which is also formed by extending the circumferential surface of the fan body, without any clearance formed between the baseplate and the leave bottom edges. Each fan leaf 330 forms a plane having a specific deflection angle. However, Huang does not disclose that the driving device is electrical.

Horng (figures 19-21) shows a heat dissipating fan having a stator seat 642 with an unnumbered coil seat and wires 644 connected to a printed circuit board 641, which one of ordinary skill in the art would readily recognize as an electric motor driving device, for the purpose of electrically driving the fan.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to form the device 200 of Huang as an electric motor, as taught by Horng, for the purpose of electrically driving the fan.

Claims 1 and 3, as far as they are definite, are also rejected under 35 U.S.C. 103(a) as being unpatentable over Horng 6,132,170 in view of Moribe 5,954,124. Horng 6,132,170 (figures 19-21) discloses a cooling fan comprising a fan body 602 mounted on a base 601 through a shaft assembly 620/621, in the base, an unnumbered depression having an upward opening 611 and a sideward opening near 612 being formed centrally in a primary portion of the base, with the fan body being extended from its circumferential surface outwardly to form a plurality of fan leaves 624, an electrical device 642 for driving the fan body being arranged in the base (stator seat 642 has an unnumbered coil seat and wires 644 connected to a printed circuit board 641, which one of ordinary skill in the art would readily recognize as an electric motor driving device). Each fan leaf 624 forms a plane having a specific deflection angle. However, Horng does not disclose that all the bottom edges of the fan leaves are fixedly jointed with a common baseplate, which is also formed by extending the circumferential surface of the fan body, without any clearance formed between the baseplate and the leave bottom edges.

Moribe (figure 3) shows a fan having a fan body 2(10) and 2(12) having unnumbered leaves that extend from an unnumbered central circumferential surface, with all the bottom edges of the fan leaves being fixedly jointed with a common annular baseplate (near 2(12) in the lower part of the figure), which is also formed by extending the circumferential surface of the fan body, without any clearance formed between the baseplate and the leave bottom edges, for the inherent purpose of smoothly guiding working fluid from the impeller blades in a radial direction.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to form the fan body of Horng such that all the bottom edges of the fan leaves are fixedly jointed with a common baseplate, which is also formed by extending the circumferential surface of the fan body, without any clearance formed between the baseplate and the leave bottom edges, as taught by Moribe, for the purpose of smoothly guiding working fluid from the impeller blades in a radial direction.

Claims 1-2, as far as they are definite, are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's Prior Art Figures 1-2 in view of Moribe 5,954,124. Applicant's Prior Art Figures 1-2 discloses a cooling fan comprising a fan body A mounted on a base B through a shaft assembly A1, in the base, a depression B1 having an unnumbered upward opening and an unnumbered sideward opening being formed centrally in a primary portion of the base, with the fan body being extended from its circumferential surface outwardly to form a plurality of fan leaves, and an unnumbered electrical device for driving the fan body being arranged in the base. The fan leaves are twisted by a specific angle to form a curved face. However, Applicant's Prior Art Figures 1-2 does not disclose that all the bottom edges of the fan leaves are fixedly jointed with a common baseplate, which is also formed by extending the circumferential surface of the fan body, without any clearance formed between the baseplate and the leave bottom edges.

Moribe (figure 3) shows a fan having a fan body 2(10) and 2(12) having unnumbered leaves that extend from an unnumbered central circumferential surface, with all the bottom edges

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of the fan leaves being fixedly jointed with a common annular baseplate (near 2(12) in the lower part of the figure), which is also formed by extending the circumferential surface of the fan body, without any clearance formed between the baseplate and the leave bottom edges, for the inherent purpose of smoothly guiding working fluid from the impeller blades in a radial direction.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to form the fan body of Applicant's Prior Art Figures 1-2 such that all the bottom edges of the fan leaves are fixedly jointed with a common baseplate, which is also formed by extending the circumferential surface of the fan body, without any clearance formed between the baseplate and the leave bottom edges, as taught by Moribe, for the purpose of smoothly guiding working fluid from the impeller blades in a radial direction.

Prior Art

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Huang '379 and Lin are cited to show fans with baseplates and central shaft portions.

Hornig '907 and '905 is cited to show impellers with baseplates and a central shaft portions.

Fujiwara and Yu are cited to show fan impellers with central shaft portions and backswept blades.

Duthie is cited to show a fan impeller with a central shaft portion.

Park is cited to show a fan with twisted blades.

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Japanese Patent 6-104,584 is cited to show fans with a baseplate and a central shaft portion.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher Verdier whose telephone number is (703)-308-2638. The examiner can normally be reached on Monday-Friday from 10:00-6:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward K. Look can be reached on (703) 308-1044. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

C.V.
July 8, 2004


Christopher Verdier
Primary Examiner
Art Unit 3745